

ABSTRACT OF THE DISCLOSURE

An optical system is usable for forming an illuminated pattern on the surface of a material which is being displaced with respect to that illuminated pattern. An illuminating device, which includes several light sources that are driven in a pulsed manner by a control unit, emits light that is used to form the illuminated pattern. A detection device detects the light emitted by the illuminating device. The control unit controls one individual light source, or a group of light sources. An operating time of the light source or sources is synchronized with an exposure time of the detection device. The operating time of the light source is shorter than the exposure time of the detection device.